



Sequence Listing

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<120> METHOD FOR MAKING MULTISPECIFIC ANTIBODIES HAVING
HETEROMULTIMERIC AND COMMON COMPONENTS

<130> P1099C1 a

<140> US 09/373,403

<141> 1999-08-12

<150> US 08/850,058

<151> 1997-05-02

<160> 26

<210> 1

<211> 36

<212> DNA

<213> Artificial sequence

<220>

<223> Mutant

<400> 1

ctcttcccga gatgggggca ggtgcacac ctgtgg 36

<210> 2

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Mutant

<400> 2

ctcttcccga catgggggca g 21

<210> 3

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> Mutant

<400> 3

ggtcatctca caccgggatg g 21

<210> 4
<211> 24
<212> DNA
<213> Artificial sequence

<220>
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<400> 4
cttggtcata cattcacggg atgg 24

<210> 5
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Mutant

<400> 5
ctcttcccga gatgggggac aggtgtacac 30

<210> 6
<211> 21
<212> DNA
<213> Artificial sequence

<220>
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<400> 6
gccgtcggaa cacagcacgg g 21

<210> 7
<211> 39
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<213> Artificial sequence

<220>
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<400> 7
ctgggagtct agaacgggag gcgtggtaca gtagttggt 39

<210> 8
<211> 33
<212> DNA
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<400> 8
 gtcggagtct agaacgggag gacaggtctt gta 33

 <210> 9
 <211> 21
 <212> DNA
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 <400> 9
 gtcggagtct agacagggag g 21

 <210> 10
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 <400> 10
 gccgtcggag ctcagcacgg g 21

 <210> 11
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 <400> 11
 gggaggcgtg gtgctgtagt tggt 24

 <210> 12
 <211> 38
 <212> DNA
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 <400> 12
 gttcaggtgc tgggctcggt gggcttgtgt gagttttg 38

 <210> 13
 <211> 821
 <212> DNA
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<220>

<223> Mutant

<400> 13

aacgcgtacg ctctgaaaat ggcggacccg aaccgttttc gtggtaaaga 50
tctggctgca cactacggcc agccgcggga acctcaggtg tataccctgc 100
caccgtctcg agaagaaatg actaaaaacc aggtctctct gtggtgcctg 150
gtcaaagggt tctatccgag cgatatcgcc gtggaatggg aaagcaacgg 200
tcaaccggaa aacaactaca aaaccactcc accggtgctg gattctgatg 250
gctccttctt tctgtattcg aagctgaccg ttgacaaaag ccgttggcag 300
caaggcaacg ttttcagctg ttctgttatg cagaggcct tgcacaacca 350
ctacaccagc aaaagcctgt ccctgtctcc cgaggaaataa gctgaggctc 400
ctctagaggt tgaggtgatt ttatgaaaaa gaatatcgca tttcttcttg 450
catctatgtt cgttttttct attgctacaa acgcgtacgc tgggcagccc 500
cgagaaccac aggtgtacac cctgccccca tcccgggaag agatgaccaa 550
gaaccaggta agcttgtact gcctgggtcaa aggcttctat cccagcgaca 600
tcgccgtgga gtgggagagc aatgggcagc cggagaacaa ctacaagacc 650
acgcctcccg tgctggactc cgacggctcc ttcttctct acagctttct 700
caccgtcgac aagagcaggt ggcagcaggg gaacgtcttc tcatgctccg 750
tgatgcatga ggctctgcac aaccactaca cgcagaagag cctctccctg 800
tctccgggta aataggggcc c 821

<210> 14

<211> 50

<212> PRT

<213> Artificial sequence

<220>

<223> Recombinant

<400> 14

Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Ser	Leu
1				5					10				15	
Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys
				20					25					30

Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45

Lys Leu Thr Val Leu
50

<210> 15
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> Recombinant

<400> 15
Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
1 5 10 15
Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
20 25 30
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45
Lys Leu Thr Val Leu
50

<210> 16
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> Recombinant

<400> 16
Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
1 5 10 15
Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
20 25 30
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45
Lys Leu Thr Val Leu
50

<210> 17
<211> 50
<212> PRT
<213> Artificial sequence

<220>

<223> Recombinant

<400> 17

Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Ser	Leu
1				5					10					15

Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys
				20					25					30

Ser	Ser	Tyr	Thr	Thr	Arg	Ser	Thr	Arg	Val	Phe	Gly	Gly	Gly	Thr
				35					40					45

Lys	Leu	Thr	Val	Leu
				50

<210> 18

<211> 50

<212> PRT

<213> Artificial sequence

<220>

<223> Recombinant

<400> 18

Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Ser	Leu
1				5					10					15

Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys
				20					25					30

Ser	Ser	Tyr	Thr	Thr	Arg	Ser	Thr	Arg	Val	Phe	Gly	Gly	Gly	Thr
				35					40					45

Lys	Leu	Thr	Val	Leu
				50

<210> 19

<211> 50

<212> PRT

<213> Artificial sequence

<220>

<223> Recombinant

<400> 19

Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Ser	Thr	Ala	Ser	Leu
1				5					10					15

Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys
				20					25					30

Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45

Lys Leu Thr Val Leu
50

<210> 20
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> Recombinant

<220>
<221> Unsure
<222> 9
<223> Unknown amino acid

<400> 20
Ser Asn Arg Phe Ser Gly Ser Lys Xaa Gly Asn Thr Ala Ser Leu
1 5 10 15
Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
20 25 30
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45
Lys Leu Thr Val Leu
50

<210> 21
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> Recombinant

<400> 21
Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
1 5 10 15
Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
20 25 30
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
35 40 45
Lys Leu Thr Val Leu
50

<210> 22
 <211> 50
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Recombinant

<400> 22
 Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu
 1 5 10 15
 Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
 20 25 30
 Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr
 35 40 45
 Lys Leu Thr Val Leu
 50

<210> 23
 <211> 62
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Recombinant

<400> 23
 Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
 1 5 10 15
 Lys Asn Thr Leu Tyr Leu Gln Met Asn Arg Leu Arg Ala Glu Asp
 20 25 30
 Thr Ala Val Tyr Tyr Cys Ala Arg Asp Asn Gly Trp Glu Leu Thr
 35 40 45
 Asp Trp Tyr Phe Asp Leu Trp Gly Arg Gly Thr Met Val Thr Val
 50 55 60
 Ser Ser

<210> 24
 <211> 62
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Recombinant

<400> 24

Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser
1				5					10					15

Lys	Asn	Gln	Phe	Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp
				20					25					30

Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Val	Asp	Leu	Glu	Asp	Tyr	Gly
				35					40					45

Ser	Gly	Ala	Ser	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val
				50					55					60

Ser Ser

<210> 25

<211> 107

<212> PRT

<213> Artificial sequence

<220>

<223> Recombinant

<400> 25

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Thr	Leu	Ser	Ala	Ser	Ile
1				5					10					15

Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Glu	Gly	Ile	Tyr
				20					25					30

His	Trp	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys
				35					40					45

Leu	Leu	Ile	Tyr	Lys	Ala	Ser	Ser	Leu	Ala	Ser	Gly	Ala	Pro	Ser
				50					55					60

Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile
				65					70					75

Ser	Ser	Leu	Gln	Pro	Asp	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln
				80					85					90

Tyr	Ser	Asn	Tyr	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu
				95					100					105

Ile Lys

<210> 26

<211> 261

<212> PRT

<213> Artificial sequence

<220>

<223> Mutant

<220>

<221> Unsure

<222> 130, 261

<223> Unknown amino acid

<400> 26

Asn	Ala	Tyr	Ala	Leu	Lys	Met	Ala	Asp	Pro	Asn	Arg	Phe	Arg	Gly	
1				5					10					15	
Lys	Asp	Leu	Ala	Ala	His	Tyr	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	
				20					25					30	
Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	
				35					40					45	
Ser	Leu	Trp	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	
				50					55					60	
Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	
				65					70					75	
Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	
				80					85					90	
Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	
				95					100					105	
Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	
				110					115					120	
Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys	Xaa	Met	Lys	Lys	Asn	Ile	
				125					130					135	
Ala	Phe	Leu	Leu	Ala	Ser	Met	Phe	Val	Phe	Ser	Ile	Ala	Thr	Asn	
				140					145					150	
Ala	Tyr	Ala	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	
				155					160					165	
Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Tyr	Cys	
				170					175					180	
Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	
				185					190					195	
Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	
				200					205					210	

Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Phe	Leu	Thr	Val
				215					220					225
Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val
				230					235					240
Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser
				245					250					255
Leu	Ser	Pro	Gly	Lys	Xaa									
				260										
